COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL RESOURCES

BUREAU OF AIR QUALITY CONTROL

FINAL REGULATIONS

CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS FROM GASOLINE DISPENSING FACILITIES (STAGE II)

FINAL REGULATION

Annex A

December, 1991

ANNEX A

TITLE 25. RULES AND REGULATIONS
PART 1. DEPARTMENT OF ENVIRONMENTAL RESOURCES
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE III AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

GENERAL

§ 121.1. Definitions

The definitions in section 3 of the act (35 P.S. §4003) apply to this article. In addition, the following words and terms, when used in this article have the following meanings, unless the context clearly indicates otherwise:

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Gasoline dispensing facility - any facility from which gasoline is transferred to motor vehicle fuel tanks.

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CHAPTER 129. STANDARDS FOR SOURCES

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Section 129.75. Control of volatile organic compounds from gasoline dispensing facilities (Stage II).

(a) After the date specified in paragraph 1, or 2 no owner or operator of a gasoline dispensing facility subject to this section may transfer or allow the transfer of gasoline into a motor vehicle fuel tank unless the dispensing facility is equipped with a Department approved and properly operating Stage II vapor recovery or vapor collection system. Unless a higher percent reduction is required by EPA under Section 182 of the Clean Air Act, approval by the Department of a Stage II vapor collection system will be based on a determination that the system will collect at least 90% by weight, of the gasoline vapors that are displaced or drawn from a vehicle fuel tank during refueling and the captured vapors are returned to a vapor tight holding system or vapor control system.

(1) This paragraph applies to gasoline dispensing facilities located in areas classified as moderate, serious or

severe ozone nonattainment areas under Section 181 of the Clean Air Act including the counties of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Chester, Delaware, Fayette, Montgomery, Philadelphia, Washington and Westmoreland with monthly throughputs greater than 10,000 gallons (37,850 liters). In the case of independent small business marketers of gasoline as defined in Section 325 of the Clean Air Act this section shall not apply if the monthly throughput is less than 50,000 gallons (189,250 liters).

(i) Facilities for which construction was commenced after November 15, 1990 shall achieve compliance not later than six months after the date of publication of this section as final in the Pennsylvania Bulletin.

(ii) Facilities which dispense greater than 100,000 gallons (378,500 liters) of gasoline per month, based on average monthly sales for the two year period immediately preceding the date of publication of this section as final in the Pennsylvania Bulletin, shall achieve compliance not later than one year from the date of publication of this section as final in the Pennsylvania Bulletin.

(iii) All other affected facilities shall achieve compliance not later than two years from the date of publication of this section as final in the Pennsylvania Bulletin.

(2) Gasoline dispensing facilities with annual throughputs greater than 10,000 gallons in the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia shall be subject to the requirements of this section immediately upon the addition or replacement of any underground gasoline storage tanks for which construction was commenced after the publication of this section as final in the Pennsylvania Bulletin.

(3) For purposes of this section the term construction shall include but is not limited to the addition or replacement of any underground storage tanks.

(b) Owners or operators, or both, of gasoline dispensing facilities subject to the requirements of this section shall:

(1) Install all necessary Stage II vapor collection and control systems, provide necessary maintenance and make any modifications necessary to comply with the requirements.

(2) Provide adequate training and written instructions to the operator of the affected gasoline dispensing facility to assure proper operation of the system.

(3) Immediately remove from service and tag any defective nozzle or dispensing system until the defective component is replaced or repaired. A component removed from service shall not be returned to service until the defect is corrected. If the Department finds that a defective nozzle or dispensing system is not properly tagged during an inspection, the component shall not be returned to service until the defect is corrected, and the Department approves its return to service.

(4) Conspicuously post operating instructions for the system in the gasoline dispensing area which, at a minimum, include:

(i) a clear description of how to correctly dispense gasoline with the vapor recovery nozzles utilized at the site.

(ii) a warning that continued attempts to dispense gasoline after the system indicates that the vehicle fuel tank is full may result in spillage or recirculation of the gasoline into the vapor collection system.

(iii) a telephone number established by the Department for the public to report problems experienced with the system.

(5) Maintain records of monthly throughput, type and duration of any failures of the system and maintenance and repair records. The records shall be kept for at least two years and shall be made available for inspection by the Department.

(c) In the event an area is reclassified from attainment or marginal nonattainment to serious, severe or moderate nonattainment under Section 181 of the Clean Air Act, gasoline dispensing facilities located in the reclassified area shall be subject to the requirements of Section (a)(1). For purposes of establishing an effective date for the reclassified area, the date of the Federal Register final notice of the reclassification shall serve as the date of publication of this section as final in the Pennsylvania Bulletin.

FINAL RULEMAKING (PROPOSED RULEMAKING OMITTED)

STAGE II (VOC CONTROLS FOR GASOLINE DISPENSING FACILITIES)

ENVIRONMENTAL QUALITY BOARD MEETING

DECEMBER 17, 1991

Executive Summary

25 Pa. Code Sections 121.1 and 129.75 Control of Volatile Organic Compounds from Gasoline Dispensing Facilities (Stage II)

Action:

The Department is adding a definition of "gasoline dispensing facility" and is adding volatile organic compound (VOC) emission control requirements relating to the dispensing of gasoline. The regulation requires that certain gasoline dispensing facilities such as gas stations install and use approved systems to control gasoline vapors released during vehicle refueling. This type of control is commonly referred to as Stage II controls.

Summary of Action:

The regulations require the installation of Stage II controls at gasoline dispensing facilities in the Pittsburgh, Philadelphia, and Berks County areas with monthly throughputs greater than 10,000 gallons per year within two years from adoption. Stations may be exempted from control requirements if they meet certain "small business" criteria as defined in Section 325 of the Clean Air Act. Requirements also include the posting of operating instructions and the removal of defective nozzles from service. Similar regulations have already been adopted.

The regulations are substantially the same Stage II regulations which the Board adopted as final form regulations on May 15, 1991, with one major change - the deletion of the statewide requirements for areas that are not severe or moderate ozone nonattainment areas. The prior final form Stage II regulations were withdrawn on November 25, 1991, during the final stages of review under the Regulatory Review Act. The current regulations are designed to meet the more immediate statutory requirements under the Clean Air Act to have Stage II regulations by November 15, 1992, covering severe and moderate ozone nonattainment areas.

Emission impact:

The regulation will ultimately affect all gasoline pumped in the five county Philadelphia area. Emission reductions are anticipated to be approximately 16,000 kilograms per day in the Philadelphia area. In the other eight counties that are classified as moderate ozone nonattainment, emission reductions will be approximately 20,000 kilograms per day.

Environmental impact:

The reduction of ozone precursors due to the Stage II control requirements is expected to result in reduced ambient ozone levels. While exact quantification of the ambient ozone level reductions is not possible, the Department does predict that the control of gasoline dispensing emissions will result in a reduction of the VOC emission inventory of at least three (3%) percent in the Philadelphia area. A smaller percentage reduction will occur in the remainder of the Commonwealth. Emission reduction estimates are subject to change as EPA adjusts its models and requirements for calculating emission inventories.

Economic impact:

Stage II control system cost estimates, based on recent experience in St. Louis, Missouri and in New Jersey, range from $ 20,000 to $ 30,000 per station. These costs include excavation. It should be noted that some facilities have already installed the required underground piping as part of underground storage tank (UST) replacements. Approximately 3,000 gasoline stations will be affected by this regulation.

NOTICE OF FINAL RULEMAKING
NOTICE OF PROPOSED RULEMAKING OMITTED
DEPARTMENT OF ENVIRONMENTAL RESOURCES
ENVIRONMENTAL QUALITY BOARD
[25 PA CODE CHS. 121 AND 129]
Control of VOC Emissions from Motor Vehicle Refueling (Stage II)

The Environmental Quality Board (EQB), by this order, amends 25 Pa. Code Chapters 121 and 129 (relating to general provisions; and standards for sources), as set forth in Annex A. The amendments will impose certain gasoline vapor control requirements in specific areas of the Commonwealth. The amendments will require that certain gasoline dispensing facilities, such as gas stations, install and use approved systems to control gasoline vapors during vehicle refueling. This type of control is commonly referred to as Stage II controls.

Notice of proposed rulemaking is omitted under Section 204(3) of the Act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §1204(3)). The EQB finds that notice of proposed rulemaking is impracticable, unnecessary and contrary to the public interest. The EQB finds that use of the omission of notice of proposed rulemaking procedure in this instance is unnecessary because the provisions for the control of VOC emissions for moderate and severe ozone nonattainment areas are substantially the same as requirements in a prior final-form Stage II regulation which was recently withdrawn during the regulatory review process under the Regulatory Review Act. This rulemaking package was previously published at 20 Pa.B. 3174 (June 16, 1990) for comment. The EQB held five public hearings on this prior Stage II regulatory package. The proposed rulemaking published at 20 Pa.B. 3174 included statewide requirements which are not contained in this rulemaking.

The EQB finds that use of the omission of notice of proposed rulemaking procedure in this instance is impracticable because the Clean Air Act explicitly mandates Stage II control in severe and moderate ozone nonattainment by November 15, 1992. There is not sufficient time to repropose a new regulatory package and meet this explicit statutory mandate. There is also a more immediate concern in southeast Pennsylvania because a pending citizens suit against the Commonwealth asserts that the Department has failed to implement its 1985 ozone State Implementation Plan for southeast Pennsylvania by not adopting Stage II controls for this area.

The EQB finds that the use of the omission of notice of proposed rulemaking procedure in this instance is clearly contrary to the public interest. During the ozone season millions of Pennsylvanians breath ozone pollution which is unhealthy. The Stage II regulations are a major part of the Commonwealth's overall strategy to reduce ozone pollution and to protect the

public health. Moreover, there is a strong public interest in satisfying explicit Clean Air Act mandates within the time frames established under this act. Failure to satisfy the new Clean Air Act requirements leads to automatic sanctions that will dramatically limit economic growth and threaten the economic health of the Commonwealth.

The EQB approved the amendments at its _____ meeting.

A. Effective Date

These amendments will go into effect immediately upon publication in the *Pennsylvania Bulletin* as final rulemaking.

B. Contact Person

For further information, the contact persons are Gary L. Triplett, Chief, Division of Air Resource Management, Bureau of Air Quality Control, P.O. Box 2357, Harrisburg, PA 17120, (717) 787-4310, and Richard P. Mather, Director, Bureau of Regulatory Counsel, Third Floor City Towers, 301 Chestnut Street, Harrisburg, PA 17101-2702.

C. Statutory Authority

The regulations are promulgated under the authority of section 5 of the Air Pollution Control Act (35 P.S. §4005) which grants to the EQB the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth.

D. Background

On May 26, 1988, the United States Environmental Protection Agency (EPA) notified the Commonwealth that the State Implementation Plans (SIPs) for ozone in the Philadelphia, Pittsburgh and Allentown-Bethlehem-Easton metropolitan areas were inadequate to attain the National Ambient Air Quality Standards for ozone. On June 27, 1989, the EPA released its Ozone Nonattainment announcement based on 1986-88 air quality data. Based upon this data, the EPA concluded that the Commonwealth has nine new areas exceeding the ozone standard, which is approximately one quarter of all new areas in the nation exceeding the standard. Gasoline vapors contain volatile organic compounds (VOCs), which are a precursor to ozone. The collection of gasoline vapors during refueling reduces the emissions of VOCs. The Stage II vapor collection system is an additional control measure to address the pervasive ozone nonattainment problem that confronts the Commonwealth.

Refueling of gasoline powered motor vehicles is a major source of uncontrolled VOC emissions. Vehicle refueling emissions occur when gasoline vapors are displaced from the vehicle fuel tank by dispensed gasoline from the pump, and from gasoline

spillage. The quantity of displaced vapors depends on the gasoline temperature, vehicle tank temperature, gasoline volatility and the dispensing rate. It is estimated, based on EPA emissions factors, that the uncontrolled emissions from the vapors displaced during refueling average approximately 11.0 pounds per 1000 gallons of gasoline dispensed.

Stage II vapor recovery systems are installed at gasoline dispensing facilities such as gas stations. With Stage II systems the vapor in the vehicle fuel tank displaced by the liquid gasoline being dispensed is prevented from escaping to the atmosphere by a flexible "rubber boot" at the junction of the vehicle fuel tank fill neck and the dispensing nozzle. This "rubber boot" is fitted over the nozzle's spout, and is attached to a hose similar to (but generally smaller than) the liquid gasoline dispensing hose. This hose, in turn, is connected to piping which routes the displaced vapors to the underground fuel storage tank. A vapor for liquid gasoline exchange is made as gasoline displaces the gasoline vapor from the vehicle fuel tank to the underground fuel storage tank.

In addition to preventing gasoline vapors from escaping into the ambient air, recovering the vapor in this manner eliminates the influx of air to the underground fuel storage tank that would normally occur as fuel is pumped out. This, in turn, prevents gasoline from evaporating inside the underground storage tank to reestablish the liquid-vapor equilibrium. The gasoline dispensing facility realizes an economic benefit from the recovered vapor, since this recovered vapor, condensed out, can be sold instead of evaporating into the atmosphere.

The amendments will require that certain gasoline dispensing facilities install and use approved systems to control gasoline vapors released during vehicle refueling. This type of control is commonly referred to as Stage II.

Stage II vapor recovery is a proven technology for controlling emissions of VOCs (gasoline vapor) during vehicle refueling. Presently 26 counties in California, Washington D.C., metropolitan New York City, St. Louis, Missouri and New Jersey have implemented Stage II programs. Connecticut recently announced that the Stage II requirements will be imposed in that state. Certification tests by the State of California on new Stage II installations indicate that the systems initially control about 95% of the VOC emissions. In a PEDCo Environmental Inc. study, contracted by EPA Region III, to investigate the reduction of VOC as part of a cooperative agreement between New Jersey, Delaware and Pennsylvania, Stage II control efficiencies ranged from 90% to 97%. Based on an EPA estimate, control efficiencies vary for Stage II in use, depending upon the degree of enforcement, from control efficiency of 62% with minimal enforcement (virtually no inspections) to 86% with annual enforcement programs.

The Clean Air Act was amended in November, 1990. Title I of the amendments contains various new requirements to address the wide-spread ozone non-attainment problem. The amendments classify ozone non-attainment areas by the severity of the ozone problems: marginal, moderate, serious, severe and extreme. In Pennsylvania, the severity of the ozone problems range from marginal to severe. For areas classified moderate through extreme, the amendments mandate Stage II controls by November 15, 1992.

E. Summary and Purpose of the Rulemaking

The enactment of the Clean Air Act Amendments of 1990, provides further support for the imposition of the Stage II controls. The regulations reflect the compliance schedules and throughput limits contained in the Clean Air Act Amendments of 1990. With these necessary changes, the Department will be able to use the final regulations to satisfy various requirements arising under the Act that must be met by November 15, 1992.

Stage II systems can be subdivided into two types on the basis of the method used to return the displaced vapor to the underground storage tank. The first type known as the "balance system" is simpler, less expensive and the type most commonly used. Vapor transfer to the underground storage is accomplished by the slight pressure created in the vehicle fuel tank by the incoming flow of gasoline. This system is passive, and operates on a very slight differential of pressure. Therefore, a tight seal is required at the juncture of the dispensing nozzle and the fillneck. To ensure a good seal, the dispensing is equipped with a "no seal, no flow" feature, consisting of a spring loaded bellows and an interlock mechanism. For gasoline to be dispensed, enough pressure must be applied to the nozzle by the operator to sufficiently compress the bellows and thus deactivate the interlock mechanism.

Another type of Stage II system is known as a "vacuum assist". This system enhances the recovery of gasoline vapors by employing a device, blower or aspirator to create a slight vacuum at the nozzle. This vacuum acts to actively draw (assist) the gasoline vapor into the rubber boot for return to the storage tank. This type of system is advantageous in that it eliminates the need for a tight seal at the nozzle/fillneck interface. The major disadvantage is that ambient air is also drawn into the vapor return hose along with the gasoline vapor. This result is that the total volume of returning vapor plus ambient air is greater than the volume of liquid gasoline drawn from the underground tank. This excess vapor, which cannot be accommodated by the underground storage tank requires some form of secondary processing (that is, incineration). This system is more complex and expensive to install and operate than the "balance system" and provides only slightly better vapor control.

A list of the specific regulatory changes in the final rulemaking is provided below:

1. §121.1. Definitions

The amendments add a definition of gasoline dispensing facility. It is defined as "any facility from which gasoline is transferred to motor vehicle fuel tanks."

2. §129.75. Control of VOCs from gasoline dispensing facilities (Stage II).

In subsection (a), the amendments establish the Stage II requirements that are applicable in various parts of the Commonwealth:

1. The regulation provides that the Department must approve Stage II vapor recovery systems and that approval will be based upon a 90% collection efficiency requirement unless a higher percentage reduction is required by EPA to meet federal requirements arising under the Clean Air Act. The Department recently received draft final guidance from EPA, required under Section 182 of the Clean Air Act, that indicates that a 95% collection efficiency will be required to satisfy federal law. The regulation clarifies the language in the prior version to ensure that the Department has the flexibility to meet any higher collection efficiency requirements that EPA might establish under the Clean Air Act.

2. The regulation requires the installation of Stage II controls at gasoline dispensing facilities located in areas classified as moderate, serious or severe ozone non-attainment areas. These areas include the counties of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Chester, Delaware, Fayette, Montgomery, Philadelphia, Washington and Westmoreland. The compliance schedule and throughput limits set out in the regulation are consistent with new Clean Air Act requirements. Facilities for which construction was commenced after November 15, 1990 shall achieve compliance no later than six months after final publication in the *Pennsylvania Bulletin*. Facilities which dispense more than 100,000 gallons per month shall achieve compliance within one year. All other affected facilities shall achieve compliance within two years.

3. Any gasoline dispensing facility, with annual throughput greater than 10,000 gallons, located in Bucks, Chester, Delaware, Montgomery and Philadelphia counties shall install an approved Stage II vapor recovery system upon the addition or replacement of an underground gasoline storage tank. The regulation clarifies the language of the prior version that an operator can return to service a defective system that the operator discovers without waiting for a Department inspection.

In subsection (b), the amendments provide that the operator of a gasoline dispensing facility which is subject to the requirements shall do the following:

1. Install and maintain Stage II vapor collection and control systems.

2. Provide adequate training and instructions to assure proper operation.

3. Remove from service a defective nozzle or gasoline dispensing system.

4. Post operating instructions in the refueling area.

5. Maintain records for at least two years of monthly throughput, type and duration of any failures, maintenance and repair records.

F. **Prior Regulatory History of the EQB's Stage II Regulations**

At its January 16, 1990 meeting, the EQB approved the proposed rulemaking for Stage II regulations. The notice of proposed rulemaking was published in the *Pennsylvania Bulletin* on June 16, 1990. The EQB held five public hearings in King of Prussia, Allentown, Harrisburg, Coraopolis and Erie on these proposed Stage II regulation, and the public comment period extended for seventy-six days. The EQB received a large number of comments from the public, IRRC and the Standing Committees of the General Assembly. The Department reviewed these comments and prepared a Comment and Response Document for this earlier Stage II regulatory package.

On May 15, 1991 the EQB adopted a final form regulation which established two sets of Stage II requirements: More immediate requirements for severe and moderate ozone nonattainment areas; and contingent requirements that did not seek compliance until 1995 or 1996 for all other areas of the state. The House Conservation Committee voted to disapprove the final-form regulation on June 28, 1991. The Senate Environmental Resources and Energy Committee found the final form regulation unacceptable by letter dated July 1, 1991. On July 18, 1991 IRRC, by a vote of 3 to 1 (with 1 abstention) voted to disapprove the regulation and to block final publication pending further Department or legislative action under the Regulatory Review Act.

The Department notified IRRC that it would resubmit the final form regulation without revision pursuant to Section 7(b) of the Regulatory Review Act. On October 7, 1991 the Department submitted its report responding to IRRC's order disapproving the Stage II regulation to the Standing Committees of the General Assembly. On October 22, 1991 the Pennsylvania Senate adopted concurrent Regulatory Review Resolution No 2 which would have barred final publication of the previous final-form Stage II regulation. On November 19, 1991, the House Conservation

Committee voted to send the resolution to the full House. On November 25, 1991 the Department withdrew the final-form Stage II regulation prior to any action by the full House on the resolution.

To replace this Stage II regulation the Department proposed a two-step approach to impose Stage II requirements in Pennsylvania. To address the more immediate requirement to have Stage II controls in place in severe and moderate areas, the Department requested that the EQB use the expedited rulemaking procedure under Section 204 of the Commonwealth Documents Law to adopt the Stage II regulations in this package. As the second step, the Department will seek an amendment to the state Air Pollution Control Act that will trigger Stage II controls statewide as they are required in the future to satisfy additional Clean Air Act requirements.

G. Use of Proposed Rulemaking Procedure is Impracticable, Unnecessary and Contrary to the Public Interest.

Because the only substantive change to the prior Stage II regulation is the deletion of the Stage II requirement for marginal ozone nonattainment areas and attainment areas, the proposed rulemaking procedures are unnecessary, impracticable and contrary to the public interest. Five public hearings have already been held, and numerous public comments have already been submitted on the prior Stage II regulations.

Moreover, the requirement to impose Stage II controls in moderate ozone nonattainment areas is now clear and imminent because EPA has not adopted on-board vehicle refueling requirements by November 15, 1991 as required by Section 7521 of the Clean Air Act. Recent communications with EPA confirm that EPA will not adopt on-board controls because there are serious safety concerns that cannot be adequately addressed. In the absence of on-board regulations, Pennsylvania remains under the mandatory requirement to have Stage II controls in moderate ozone nonattainment areas no later than November 15, 1992.

In addition, without the modified Stage II regulations that includes moderate ozone nonattainment areas, the Department will not be able to meet the Section 7511a(b)(1) Clean Air Act statutory requirement to reduce the emission of ozone producing pollutants in these areas by fifteen percent by November 15, 1996. A SIP containing the control measures designed to achieve the required 15% reduction, such as Stage II controls, must be submitted to EPA no later than November 15, 1993.

Further delay in the imposition of Stage II requirements in severe and moderate ozone nonattainment areas will threaten public health and lead to the imposition of sanctions under the CAAA of 1990. The CAAA of 1990 establishes an ambitious regulatory schedule to reduce air pollution and to protect the public. EPA must impose sanctions on states which fail to meet this regulatory schedule. If the Department does not have Stage II controls in

place in severe and moderate ozone nonattainment areas no later than November 15, 1992, EPA must begin the sanction process. Mandatory sanctions, established by the CAAA of 1990, include the withholding of federal highway funds (approximately $750 million per year) or the imposition of a two to one offset requirement (reducing emissions by twice the amount of the proposed increase) for new sources. Either sanction will dramatically curtail economic growth. EPA also retains discretionary authority under the CAAA of 1990 to impose additional sanctions which include the withholding of air quality grants or sewage grants.

There is a more immediate issue concerning the lack of Stage II controls in the five counties in southeast Pennsylvania. In a citizen suit currently pending before the federal district court in Philadelphia, EPA and several citizens groups have asserted that the Department has failed to implement its 1985 ozone SIP for southeast Pennsylvania by failing to adopt, inter alia,, Stage II controls for the five county area. Delaware Valley Citizens Council for Clean Air, et al. v. Arthur A. Davis, et al., 89-2592 (E.D. Pa.). The precise issue concerning Stage II controls is currently before the court on the citizen groups' motion for summary judgment. A court decision requiring the Commonwealth to implement Stage II will increase the possibility that the Department may be subject to court or EPA imposed sanctions. Expeditious action to adopt Stage II requirements will help the Department to address this pending litigation.

H. Benefits and Costs

Executive Order 1982-2 requires a statement of the benefits of a proposed amendment, as well as costs which may be imposed. It also requires a statement of the need for, and a description of, forms, reports or other paperwork required as a result of the proposed amendments.

Emission Impact

Based on EPA emission factors and on Pennsylvania gasoline sales, the potential VOC emissions reductions from Stage II are estimated to be approximately 16,000 kg/day in the Philadelphia area. Approximately 20,000 kg/day could occur in the other eight counties that are classified as moderate ozone nonattainment areas. Emission reduction estimates are subject to changes when EPA revises its approved models or procedures for calculating inventories that are used in SIP planning.

In the Philadelphia area, the Department estimates that Stage II emission reductions are approximately 3% of the VOC emission inventory. Control of VOC emissions through Stage II requirements is, next to the reduction of gasoline volatility to RVP 9.0 psi, the single largest emission control strategy that is available. A smaller percentage reduction may occur in the remainder of the Commonwealth.

Precise quantification of the emission reductions would require a census of the exact numbers and throughputs of the Commonwealth's gasoline dispensing facilities. The Pennsylvania Petroleum Association has indicated that such data are unavailable.

Environmental Impact

The reduction of ozone precursors due to the Stage II control requirements is expected to result in reduced ambient ozone levels. While exact quantification of the ambient level reductions is not possible, the Department does predict that the control of gasoline dispensing emissions will result in a reduction of the VOC emission inventory of approximately 3% in the Philadelphia area. A smaller percentage reduction will occur in the remainder of the Commonwealth because only a portion of the total gasoline sales volume will be affected. The amendments will also reduce the amount of gasoline vapors in the ambient air during refueling. Individuals who pump gasoline and who breath the fumes containing benzene will be exposed to at least 90% less gasoline vapors under the proposed amendments.

Cost to Private Industry

Stage II control system cost estimates, based on recent experience in St. Louis, Missouri and in New Jersey, range from $20,000 to $30,000 per station. These costs include excavation. It should be noted that some facilities have already installed the required underground piping as part of underground storage tank (UST) replacements. Approximately 3,000 gasoline stations will be affected by this regulation.

The cost estimates are based upon the assumption that every gasoline tank will have to be excavated to install the piping necessary for Stage II controls. The major cost in installing Stage II controls is the cost of excavation. If the necessary piping has already been installed on a tank or if the tank is excavated for another reason, such as tank replacement, the cost of installing Stage II controls will be substantially decreased. Although the Department has not yet secured precise data concerning the number of tanks which already have the necessary piping or will be excavated for another reason, the Department has received some information that there are a number of tanks which will fall into either category. The overall cost of the Stage II program could be substantially less than the Department's estimates if a sufficient number of tanks already have the necessary piping or will be excavated for other reasons.

Cost to the Commonwealth

Under the amendments, the Department will inspect Stage II recovery systems that are installed. Additional resources will be required to inspect the Stage II systems that are installed.

Cost to Local Government

There will be no additional cost to local government.

Cost to the General Public

There will be no additional cost to the general public other than a possible pass through of installation costs by operators of affected facilities.

Paperwork Requirements

The amendments will require that owners/operators maintain records to demonstrate their level of gasoline sales. No specific forms are required, and these records are generally kept as part of the normal course of business. Service station operators will also be required to submit applications for plan approval for the installation of the required Stage II systems.

I. Sunset Date

A sunset date has not been established for these regulations. The effectiveness of these regulations will be evaluated during the regular and ongoing evaluation of all regulations.

J. Regulatory Review

Under Section (5)(f) of the Regulatory Review Act, (71 P.S. §745.5(f)), the Department submitted a copy of this rulemaking with Notice of Proposed Rulemaking Omitted, on _____ to the Independent Regulatory Review Commission and the Chairmen of the House Conservation Committee and the Senate Environmental Resources and Energy Committee. The Department also submitted this rulemaking to the Office of Attorney General. The Department also provided the Commission and the Committees with copies of all other documentation.

This final form regulation was (deemed) approved by the Committees on _____, and was (deemed) approved by the Commission on _____, in accordance with Section 5(c) of the Act.

K. Findings of the Board

The Environmental Quality Board finds:

(1) That these regulations are necessary and appropriate for the administration, enforcement and implementation of the Air Pollution Control Act, (35 P.S. §4001 et seq.)

(2) That these regulations are necessary and appropriate to satisfy explicit statutory requirements under the Clean Air Act to impose Stage II controls in severe and moderate ozone nonattainment areas by November 15, 1992.

(3) That the procedures specified in Sections 201 and 202 of the Commonwealth Documents Law are, in this circumstance, impracticable, unnecessary and contrary to the public interest.

(4) That during the ozone season, millions of Pennsylvanians breath unhealthy air that contains high levels of ozone pollution and that this regulation is needed as part of the Commonwealth's overall strategy to reduce ozone pollution levels and to protect the public health.

(5) That an ample opportunity for public comment and public hearing was provided with the previous final form Stage II regulations which were withdrawn on November 25, 1991.

(6) That the failure to adopt these regulations by November 15, 1992 will threaten the public health, lead to the imposition of automatic sanctions on the Commonwealth and threaten the economic health of the Commonwealth.

(7) That the only substantive change from the previous final-form Stage II regulations is the deletion of the statewide requirements that covered marginal ozone nonattainment areas and attainment areas.

(8) That at this stage of the regulatory review process under the Regulatory Review Act there is no opportunity to revise the previous final-form Stage II regulations that were withdrawn.

(9) That there is insufficient time to follow the rulemaking procedures in Sections 201 and 202 of the Commonwealth Documents Law, 45 P.S. Sections 1201 and 1202, to promulgate a new Stage II regulation for severe and moderate ozone nonattainment areas by November 15, 1992 and to satisfy the explicit statutory requirement under the Clean Air Act.

(10) That the prior final form regulation which included a contingent statewide requirement for marginal ozone nonattainment and attainment areas was withdrawn and this regulation which covered only severe and moderate ozone nonattainment areas was adopted to address the more immediate requirement to have Stage II controls in place in these severe and moderate nonattainment areas by November 15, 1992.

L. Order

The Environmental Quality Board, acting under the authorizing statutes, orders:

(1) That the regulations of the Department of Environmental Resources, Chapters 121 and 129. Sections 121.1 and 129.75 are hereby amended to read as set forth in Annex A.

(2) That the Chairman of the Environmental Quality Board shall duly certify this order, Annex A hereto and shall deposit same with the Legislative Reference Bureau, as required by law.

(3) That the Chairman of the Environmental Quality Board shall submit this Order and Annex A to the Independent Regulatory Review Commission, the Legislative Standing Committees and the Office of Attorney General as required by the Regulatory Review Act.

(4) That this order shall take effect immediately.

BY THE ENVIRONMENTAL QUALITY BOARD

_____

Arthur A. Davis
Chairman